Determination of frequency characteristics of accumulator power sources - includes passage of non-sinusoidal periodic voltage to battery, breakdown of voltage and current into harmonic Fourier series and measurement of amplitude and initial phase

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X16 (97.08.27) H01M 10/48, G01R 31/36

The non-sinusoidal voltage and current applied from a source (1) to a battery are formed and are broken down into a harmonic Fourier series and the amplitude and initial phase of the voltage are measured, while the harmonic phases are used to determine the complex resistance of the battery for each harmonic and the active and reactive components.

Knowing the frequency characteristics of the source, its working fitness, the mechanical condition and degree of charging of the power source are fixed using an analogue-digital converter (3) and a computer (4).

USE - Determination of frequency characteristics of accumulator power source.

ADVANTAGE - Determination of amplitude-frequency and phase-frequency characteristics of all types of accumulator. (3pp Dwg.No.1/2)